

**Zeitschrift:** IABSE structures = Constructions AIPC = IVBH Bauwerke  
**Band:** 3 (1979)  
**Heft:** C-9: Recent structures  
  
**Artikel:** Hasune Footway Bridge, Tokyo (Japan)  
**Autor:** Yamadera, N.  
**DOI:** <https://doi.org/10.5169/seals-15814>

### **Nutzungsbedingungen**

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

### **Conditions d'utilisation**

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

### **Terms of use**

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

**Download PDF:** 17.07.2025

**ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>**

## 10. Hasune Footway Bridge, Tokyo (Japan)

Owner: Tokyo Metropolitan Government  
 Designer, Engineer: Tokyo Metropolitan Expressway  
 Public Corporation  
 Contractor: Sakai Iron Work Co., Ltd.

### General

The Hasune Footway Bridge crosses over a multiple intersection located in a residential quarter in the northern part of Tokyo. The proposed intersection of 3 major roads would cut the quarter into 3 blocks. Therefore provision was made in the planning to construct a new overhead footway there. In accordance with the shape of the crossing, the plan of the footway bridge was decided on as shown in Fig. 1 consisting of a triangular central part with the accesses from each of the three blocks so designed as to overpass freely with the least additional distance. Each access provides both ramp and stairway thus enabling passage not only on foot but also by bicycle, wheelchair and so forth.

The bridge has two distinctive features. The first is an outstanding aesthetic appearance harmonizing with the quarter, and the second is ease of use.

The construction of the Hasune Footway Bridge was planned by the Tokyo Metropolitan Government and the design and supervision of the construction were entrusted to the Tokyo Metropolitan Expressway Public Corporation. The construction work on site began in August 1975 and the bridge was put into service in May 1977. The total construction cost was about 350 million yen.

### Main Structures

The main structures consist of steel deck plates and steel box girders as the superstructures, with box section steel bents and cast-in-place concrete piles as the substructures.

The structure of the central triangular flat part is a three dimensional rigid frame having three curved box girders connected to each other at apices of the triangle, where steel bents are embedded. The analysis of this structure was made for a continuous three dimensional skeleton including steel bents and concrete piles. The structures of the ramp accesses and stairways are box section rigid frames and suspended girders. On both sides of the steel deck plate, the vertical ornamental side plates of 60 cm in depth are installed as shown in Fig. 2 so as to hide the uneven plane caused by attachment of ribs. Light-blue color was painted on these side plates, against the dark-blue of box girder's web. The existence of the side plates and the two-tone color painting are very effective in setting off the girders' slenderness and uniform continuity. The field joints of side plate, steel deck plate and steel bent were executed by field welding. It also played a role in achieving the outstanding appearance of the bridge.

### Railings, Pavements and Accessories

Balusters made of cast iron were installed to form a smooth vertical arch with side plates as shown in Fig. 2. The height decided on for the baluster was 120 cm, and another hand rail was installed at a height of 85 cm for the convenience of aged persons and children. There are also attached braille block tapes on this rail for blind users.

Colored resin mortar was laid as the surface of the pavement on two layers of asphalt pavement. The bridge surface with its colored pattern made the bridge light and pleasant to the user. Separate colors were adopted for each of the three accesses so as to distinguish the direction of ramp. And the guide board at the entrance of each access displays the direction by colors.

The 6 cm thick pavement was increased diagonally to a 10 cm width at both ends beside the curbs, for drainage of water. Thus the bridge does not need any drainage pipe.

There is a large circular open space of 5 m diameter in the center of the triangular part, and there is a pole 18 m high for illumination. Around the circular space, benches are being set in order that users can take a rest at the top of the bridge. At part of one access, a sight-barrier board had to be installed in accordance with the request of residents near the bridge. Aesthetic considerations also played a part in this board design as shown in photo 4. Arched pipe was used with plastic plate and an open space with slats to accent the appearance and to anticipate wind pressure.

The Hasune Footway Bridge can be said to be a good example of the direction in which overhead footway construction should be heading. In the design of structural details and accessories consideration was paid to many aspects such as aesthetic appearance, and ease and pleasure of use. As a result the bridge provides the user not only with a means of passage but also friendly human space on it.

The bridge was awarded the Tanaka Prize of the Japan Society of Civil Engineers for 1977.

(N. Yamadera)

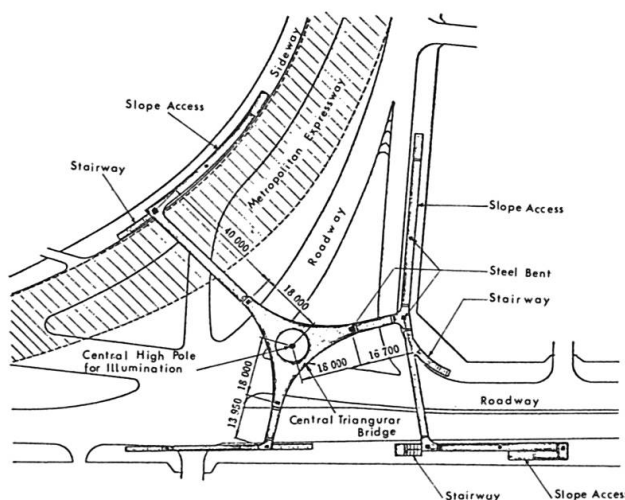


Fig. 1 Plan

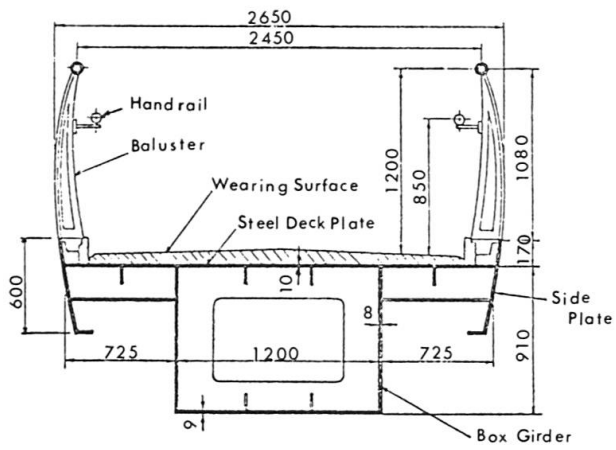


Fig. 2 Standard Cross Section of Superstructure

